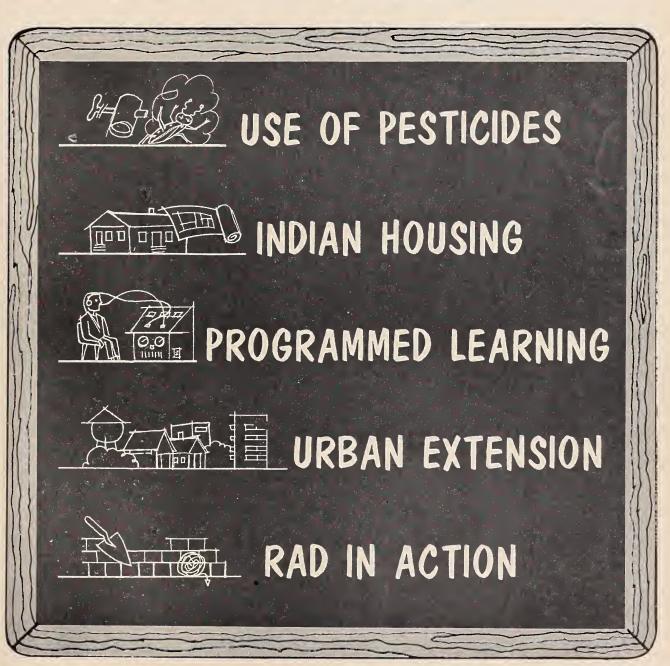
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VOLUME 34 • NO. 6 • JULY 1963

The Extension Service Review is for Extension educators—in County, State, and Federal Extension agencies—who work directly or indirectly to help people learn how to use the newest findings in agriculture and home economics research to bring about a more abundant life for themselves and their communities.

The Review offers the Extension worker, in his role of educational leader, professional guideposts, new routes, and tools for speedier, more successful endeavor. Through this exchange of methods, tried and found successful by Extension agents, the Review serves as a source of ideas and useful information on how to reach people and thus help them utilize more fully their own resources, to farm more efficiently, and to make the home and community a better place to live.

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Prepared in Division of Information Federal Extension Service, USDA Washington 25, D. C.

The Extension Service Review is published monthly by direction of the Secretary of Agriculture as administrative information required for the proper transaction of the public business. The printing of this publication has been approved by the Bureau of the Budget (June 26, 1958).

The Review is issued free by law to workers engaged in extension activities. Others may obtain copies from the Superintendent of Documents, Government Printing Office, Washington 25, D. C., at 15 cents per copy or by subscription at \$1.50 a year, domestic, and \$2.25, foreign.

EXTENSION SERVICE

REVIEW

Official monthly publication of Cooperative Extension Service: U. S. Department of Agriculture and State Land-Grant Colleges and Universities cooperating.

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EDITORIAL

There is a lot new under the sun. New ways, new words, new phrases. And some of the old refurbished to the Space Age. People no longer go to the city; they go to a Metropolitan Area. Sometimes it is difficult to know to which metropolis they go because metropolitan areas are merging. As a counterthrust to this there has come into being the Open Spaces program—parklike areas of trees and grass to cut down on Urban Sprawl.

From Open Spaces and Urban Sprawl let's move on to the Shopping Center and see the new Motor Hotel and then take the new Freeway to the new Jet Airport. I take it you are impressed by the new Sophisticated Technology. You haven't seen anything yet. Wait until Automation is in full bloom. And Information Retrieval. With knowledge doubling every 10 years Electronic means of getting the information you need quickly are being developed. Some firms spend quite a bit of time and money just finding out what has been done in some particular field of research.

Here's more:

Electronic Data Processing is a phrase that is at home today in U. S. industry, agriculture, and business. Amid all this progress it is a healthy sign that the American people still cherish some traditional rural values. Country Music is booming. Many a college and university have groups of students who enjoy playing and singing old folk ballads to enthusiastic audiences. Barbershop singing is also popular throughout the country. And the Sweet Adelines, the female counterparts of the men Barbershop singers, are batting out the old familiar tunes.—WAL

HANGE is one of the most common phenomena affecting our lives, New York State has few exceptions. Since World War II the trend to disperse to suburban areas has been increasing. In 1950, 84 percent of the New York population lived in the cities, suburbs, and outlying areas of the seven metropolitan districts, each oriented around a city of 50,000 or more. While the overall concentration continues, a recent census shows that New York City and 8 of the 12 other cities of more than 50,000 population are losing their residents and that the suburban areas are growing

Within this State, where 1 of every 11 persons in the United States lives, there are 17 million residents. As early as 1870, New York State became

Improving Public Understanding of Pesticides

more urban than rural, and by 1910, the farm population comprised only 10 percent of the total. Today about $2\frac{1}{2}$ percent of New York's population are farm residents. Since the turn of the century the number of commercial farms has declined nearly 75 percent, yet agricultural production has increased by more than 25 percent. Forty percent of New York's land area is used for agriculture.

The production increase is a tribute to the New York farmer and the many educational and technical forces which have been part of our changing times. This State ranks 12th in the Nation in total agricultural production. Cash receipts from New York consumers at retail food stores total about \$5 billion a year. Thus, in New York State we are dealing with these facts. Agricultural production is big business (total gross

farm income is about \$1 billion a year). More money is spent at the retail level for food and beverages than in any other State. The suburban population is increasing rapidly and suburban housing is pushing to the very edges of commercial farming operations. These changes in themselves present problems which require adjustments.

The New York State College of Agriculture plays a vital role in providing educational information to the farmers and citizens of the State through the New York State Cooperative Extension Service. The Extension Service has 155 full and parttime specialists at the college, 160 county agricultural agents, and 150,000 members in county associations.

By 1956 the need for increased college research in the area of agricultural chemical residues was deemed necessary. Thus, in 1957 the Pesticide Residue Laboratories of the New York State College of Agriculture were established at Ithaca and Geneva. Residue data from the work being carried on at the laboratories has been extremely valuable to research and extension workers as guidelines for recommending new methods or materials for commercial agriculture.

Constant attention is being paid to the unique problems created when suburban housing developments build to the edges of farm fields under active cultivation and production. Safe pesticides must be used in these areas which will not constitute a hazard to suburban dwellers living adjacent to cultivated fields where inadvertent drift of dusts or sprays could occur.

Suburban homeowners, pleased with their new freedom found in the "country," try their hand at home vegetable gardens. They soon find that blemish-free crops are not possible without a minimal insect and disease control program. To answer questions and provide a guide for the homeowner to follow in his vegetable gardening ventures a new publication has been prepared.

A full-color guide to the insects and diseases of home grounds ornamental trees is also anticipated.

In addition to the vegetable garden venture the new homeowner finds

by ARTHUR A. MUKA Extension Entomologist New York

WHAT'S ON A PESTICIDE LABEL

GENERAL DIRECTIONS FOR USE

NET WEIGHT ONE POUND

as leaf lettuce, cole crops and to beons ond squash. Do nat sproy mixture well agitated To ovoid excessive residues do intervals ar as necessary Spray until foliage is wet Keep not apply within 7 days of horvest to leofy vegetables such Use 3 toblespoonsful per gallan of water Apply of weekly mix with Bordeoux or other alkaline materials Controls scab, sooty blatch, black rot, May couse folior injury if used cales, codling moth, leaf roller, York and McIntash apples before second cover spray a plum curculia, apple magg aphids, Jopanese beetles, Apples, plums, cherries

grape berry moth Controls mildew, block rat, leaft Grapes-

n bean beetle, flea Cantrols mildew, rust, anthracnose, Mer Vegetables, Beansbeetles, stink bugs.

Cabbage and other cole crops

Mildem, alternario. onthrocnose. squash bugs, cuci Cucumbers and other cucurbits-

Early and late blight, Colorado potata beetles. Ilea beetle Tomatoes Potatoes-

Eorly and late blight, anthracnose, leafspots, tomata fruitwo Hea beetles

Ornamentals

- may be used an a wide range of ornamental plants, flawers arborvitoe. juniper, azalea, elm, maple. dogwood, birch and shrubs, shode trees including rose cornations, zinnia. liloc, pine Do not use an Boston ivy

Controls.

baxelder bug, elm leaf beetles, fleo beetles, gypsy moth, Japanese Leafspots, mildew, anthracnose, leaf blight of azalea, black spot of rases, Botrytis blight, rusts. Also, bagworm, birch leaf miner, beetle, locebugs, leofhoppers, mealy bugs, scale insects, tent coterpillars, willow leof beetles.

Garden Glow

CAUTION

SPRAY

prolonged ar repeated contact with skin, wosh tharoughly after Harmful if swollowed. Avaid breathing dust ar mist. Avoid handling. Store oway fram children, animals and food-stuff

Notice to Buyer-

oth directions or not. sed or implied, sumes all risk Seller makes no warronly at any kind, exp concerning the use of this product. Buyer of use or hondling whether in occordonce

CONTROLS CERTAIN INSECTS AND DISEASES

ACTIVE INGREDIENTS...



Zineb (zinc ethylene bis dithiocarbamote)---25% Sevin" (1-Naphthyl-N-methyl carbamote) ---35%

INERT INGREDIENTS...

"Trade Mark (1) of U.C.C.

Kinds of Economic Poison Labels...

POISON & -usually for professional use.

Warning (Danger) - semiprofessional use or special problems. Caution - homegardener use.

di la

READ THE SMALL PRINT!

Prepared by the N.Y.S. College of Agriculture at Cornell University, Ithaca, N.N.

that the lawn, foundation plantings, and possibly a small number of fruit trees also require special attention. Many inquiries and requests for help in solving some of the new problems come to the county agricultural agent. However, many homeowners not aware of this source of information often go to the local garden supply dealer where they have purchased pesticides.

In several suburban areas where this situation has developed the New York State Extension Service has added a regional home grounds agent. His primary objective is to make a continuous supply of information available to the garden supply dealer. This information consists of recommending specific pesticides for particular home grounds problems and providing information on various insects and diseases.

A newly inaugurated program utilizes a large multicolored wall chart to direct attention to the information on a pesticide label. The chart directs attention to the label information on such fine print subjects as general directions for use, active ingredients, and precautions. charts are expected to be displayed by the leading garden supply dealers in the State. It is anticipated that placement of these charts and other educational information developed by representatives of the Land-Grant College will reach a high percentage of the homeowners buying pesticides.

Safe use of pesticides is paramount in importance. A fatality or illness resulting from a pesticide, whether from homeowner or commercial farm use, is unnecessary. Continuous efforts are being made stressing the safe use and storage of pesticides: they must never be exposed to children, irresponsible persons, or pets. The removal and safe disposal of empty pesticide containers is also part of the vigilance campaign. It is estimated that the pesticide manufacturer spends as long as 5 years and up to \$11/2 million to develop a new product. The expense includes development of residue data needed to justify the establishment of a tol-

> Pesticides Regulation Division Agricultural Research Service, USDA

erance or exemption by the Food and Drug Administration of the United States Department of Health, Education, and Welfare. Data also needs to be obtained on the effectiveness and safety of the product to support registration of the label with the Pesticides Regulation Division of the United States Department of Agriculture. Therefore, any program of public information which will alert the public to read and follow the label will be beneficial.

In addition to providing pesticide information to the homeowner the Extension Service also tells how and why pesticides are used in commercial agriculture. It is especially important to educate the consumer on the necessity of using pesticides to insure production of a safe, high-quality food supply.

Much of the problem which has been generated in recent months is based on lack of understanding or misunderstanding. The task of providing the consumer with factual information is immense and one of the greatest challenges ever faced by public servants concerned with agricultural chemicals. It is not enough to provide information to the consumer. The confidence of those concumers who have become alarmed

about pesticides must be regained.

In an effort to develop better public understanding of New York agriculture over a third of the New York counties have sponsored you-drive-it tours during the growing season. A preplanned tour route is published in the local papers and the public is invited to drive the tour on selected weekends. At each stop a member of the Extension Service or the grower is present to answer questions and explain the agricultural enterprise. This type of tour has been especially popular in those areas around large metropolitan buildups.

In the fall of 1962 during the early period of public awakening and concern over the use of pesticides, the New York State College of Agriculture published a fact sheet which outlined research workers' views on several questions which were pertinent and in the public mind. The information was widely distributed to mass media.

It is evident that those responsible for providing the public with factual information face a serious challenge. The future must provide information that will enable us to continue to use pesticides and/or other control measures to safeguard plants and animals for the benefit of mankind.





This is a street in the new housing development. So far, 10 homes have been occupied; 40 more are near completion.

South Dakota Indian Families Move Up to New Housing

by RONALD ROSS
Assistant Publications Editor
South Dakota State College

Any FAN of the Ma and Pa Kettle movie series a few years ago surely remembers the adventure when they moved with their many children from the rickety old farmhouse to the ultra-modern home in town. Some of Ma's unorthodox ways of adapting to the new situation, especially in the kitchen, would have driven a home economist out of her mind.

To get the very real-life situation that faced Extension agents at Pine Ridge, South Dakota last summer, multiply Ma and Pa by 10 and the children by 4 or 5 and add or subtract in individual cases for initiative and basic talents.

Ten families—mostly from substandard frame or log living quarters spotted around the Pine Ridge Reservation had been selected by the local housing authority to be the first to move into a Public Housing Administration low-rent housing project. Not unlike Ma and Pa Kettle, these families averaged 5 children apiece—most of them under 5 years of age. They were completely unfamiliar with modern conveniences such as electric stoves and had never given much, if any, thought to meal planning or budgeting.

Yet they were ahead of many of the Indian families with which Extension works. They all had an income—the average was between \$2,500 and \$3,000 per year—and they wanted to improve their living conditions, but were uncertain if they could adapt overnight to the new situation. They were faced with making a jump in living standards that has taken most families two or three generations.

They were not used to living in a confined area, with neighbors, and community codes. Nor were they used to having a rent payment due the first of every month. The old shacks may not have been modern, but for the most part, they were owned by their occupants.

Extension agents and other leaders were just as uncertain if they could show them how to make the switch in such a short time and at little cost. But they knew this was the chance and challenge they had been waiting for since they had begun work on the reservation. Here at last was something really concrete on which to build an educational program.

With only 6 months until moving day, they didn't have time to relax. Bessie Cornelius and C. D. Allen, agents at Pine Ridge, visited with the families and observed the existing conditions. They came up with a list of major needs: family living, home management, meal planning, electrical cooking, and obtaining furniture. Most of what the Indians had was not suitable for the new homes.

Before individual work began, a meeting was held for all interested persons to explain the responsibility of each agency of the Federal Government and the Tribal Council regarding the development. Rumors had started about the Indians "losing their freedoms" if they moved into the housing, and these had to be refuted.

Then Mrs. Cornelius called on Merle Gunsalus and Isabel McGibney, family life and home management specialists, respectively, from the State Extension office at South Dakota State College.

Workshops on family relations and home management came first. Both the women and the men were prompted on the responsibilities of living in a crowded neighborhood. The days of tin can-littered yards were over. Also, fullbloods and mixed bloods would be living side by side for the first time on the reservation. Record keeping,



Left, Mrs. Yellow Boy lived here with 15 others. Below, she shows Mrs. Cornelius the first refrigerator she has owned in the 17 years since her marriage.



budgeting, meal planning, time and money management, and routine housekeeping operations were gone over in detail. Mimeographed booklets outlining daily, weekly, and monthly cleaning chores were distributed.

Because the homes were equipped with electric stoves, an electrical cooking workshop was held. The women had a chance to try out new techniques under supervision. A variety of nutritious, economical foods was studied.

Next came the problem of furniture. The Tribal Council came to the rescue, with a loan of \$500. Mrs. Cornelius and some of the other leaders went to Chadron, Nebraska and bought a van-load of "junk" furniture for \$335. With the rest they bought paint, fabric, and tools.

Several sessions were held on upholstering and refinishing furniture. Six of the 10 families tackled the broken-down items with more vigor than they had exhibited toward any other project in their entire lives.

Then came the time for the real test—applying learned ideas to actual living in the new environment.

Results so far have greatly exceeded expectations. Mrs. Cornelius cites one of the 7-member families, headed by widow Athelia Yellow Boy. She had been living with her parents in a 2-room log cabin which housed 16 persons altogether. A fire in early 1962 took the life of her husband and also destroyed all of their possessions.

Mrs. Yellow Boy was doubly afraid of changing living standards because of her added responsibility to her children and changing homes would mean losing the help she had been receiving from relatives. But Mrs. Cornelius urged her to apply, and she was accepted.

She now takes it all in stride. She talks confidently of the future as she makes rugs and curtains for her new home. Her children are near the school and attend regularly.

Mrs. Yellow Boy's income is \$252 per month. Out of this she pays \$53 rent, \$5 back to the Tribal Council's furniture fund; and \$5 to a department store charge ac-



Mrs. Yellow Boy and Stanley and Barbara, two of her six children, sit in the living room of their new four-bedroom home in the Pine Ridge development.

count. She plans meals well in advance, watches for grocery bargains, and budgets the remaining money.

The furniture she purchased from the Council was worth about \$20. She upholstered a davenport, chair, kitchen chairs, painted all the wooden furniture, and Mrs. Cornelius says, "It is now worth a whole lot more, and would be a welcome addition to any home."

Mrs. Cornelius and the others anticipate more problems in the future. For one thing they will have at least 40 more families to train. And in a few years Pine Ridge will be brimming with teenagers.

But they aren't worried. "After the personal initiative these people exhibited, they proved they were willing to use every basic talent they have to get what they want. And what better basis for sound planning could you have than that?"

PROGRAMMED LEARNING

-newest teaching technique

PETER MOON

Department of Psychology Purdue University EINAR R. RYDEN

State Extension Leader in Research and Training Purdue University

In The PAST, the psychology of learning has not been very helpful to the educator. It has not particularly assisted in the improvement of teaching practices. Recent advances in experimental analysis of human behavior, however, have shown that a true technology of education is possible. Education and the learning process can become far more efficient. Psychological principles may be utilized with great benefit. The following article explains the principles involved and their applications.

Programmed Learning

This is a new term but one which will be increasingly used and understood in all areas of education. Most people have heard of "teaching machines." The terms programmed learning and teaching machine are sometimes confused. W. I. Smith and J. W. Moore, in their book, Programmed Learning, say that the former term refers to the concept of "auto - instructional methods" of teaching. It is characterized by the controlled presentation of material, the drawing-out of the desired response, guidance with respect to the subject matter and control of the way in which learning proceeds. A teaching machine is merely the gadget which is used in the presentation of programmed material.

The program may be presented by the use of a teaching machine but programmed materials do not necessarily entail the use of machinery. They may be in the form of a special book. It is the *program* which is most important. The program is the subject matter that is to be learned.

Teaching machines can be very simple or highly complex electronic devices. The simplest may be a card-

board or plastic mask which is slipped along manually by the learner from one learning exercise to another as he proceeds through a learning program. The most complex are comparable to so-called mechanical brains, with elaborate audio and visual arrangements for presentation of material to the learner, for control by the instructor, and even for computer-controlled variation in the content or sequence of the material presented in accordance with the responses of individual learners.

Machines may be activated by typewriter keyboard, pushbutton, or by manual manipulation with pencil or stylus. It should always be remembered that a teaching machine by itself does not teach; it merely controls the presentation of some learning program. Teaching machines can be used for self-instruction without teacher involvement, or can be used by teachers as an aid for particular aspects of subjects being taught.

Principles of Learning

- 1. Learning takes place most rapidly if the student is actively engaged with the subject matter.
- 2. Learning is most effective if the student develops the skills and knowledge in a form which will readily *generalize* to the real life situation for which they are intended.
- 3. Learning takes place most rapidly if *immediate knowledge* of results is given for each response.
- 4. Learning takes place most rapidly if the subject matter is *arranged* in a hierarchic form.
- 5. Receiving frequent *knowledge* of results keeps students working at the assigned task.
- 6. Since learning takes place in individuals, the learning situation should be designed so that each per-

son may proceed at his own pace.

These principles are not new. Good teachers have known them for many years and attempt to use them whenever possible, but the very nature of these principles prevents their being properly applied. For example, in a group situation a teacher may not permit everyone to proceed at his own pace. Immediate knowledge of results is not always possible. How then does programmed learning prevent these difficulties?

- 1. The material to be taught is arranged into a series of sequential steps leading from simple concepts to new material.
- 2. The student is presented with the material one step at a time.
- 3. He reads this small step or unit and makes a response, for example, by writing a word or sentence.
- 4. He is then informed of the correct response immediately. This means he is "rewarded" if correct and if wrong, he is corrected immediately. In the normal classroom situation it is often several days before a student's errors are corrected.
- 5. The student sets his own pace. Figures 1 and 2 show two "frames" of a simple program designed to impart the concepts of measurement. The program is presented one step at a time using a device to cover the correct response. This appears in the box below and is exposed after the learner has written his own response in the space provided. In this way he checks his work at every step and is corrected immediately when he falls into error. These simple examples serve to illustrate the way in which a program is built. Notice in Figure 2, that the term "unit" is repeated and that the learner is then required to produce this term as a response.

FIGURE 1

- (1) inches
- (2) feet

FIGURE 2

Inches and feet are what we call *units* of measure. To describe the length of an object, we say it is so many units long, as nine inches or seven feet. Yards and miles are also ——of length.

units

Programmed material has been used in classrooms for several years. Many reputable publishing companies are producing programs in such subjects as English, mathematics, and foreign languages. In industry, programs are being used for more efficient and faster training of workers. The Armed Forces are using numerous devices based on the principles detailed above. Advertisers are using them in attempts to fix the names of products in the memory of the consumer. In Ohio, the Extension Service has used the technique to train in radio broadcasting.

In his article, The Science of Learning and The Art of Teaching, B. F. Skinner says that programmed learning offers great advantages to the teacher, the industrialist, and anyone concerned with more efficient methods of instruction. There is no doubt that programmed learning is effective. Research has already demonstrated this. Wherever there is teaching or the dissemination of information these principles apply.

The possibilities are great. Wherever efficient teaching and learning are desirable, programming of the material should be considered.

EDUCATIONAL PROMOTION MOVES OUTDOORS!

by RUSSELL F. McDONALD
District Marketing Extension Agent
Michigan

In Lenawee County, Michigan, Extension agents are using outdoor advertising to supplement the other common forms of mass media to tell residents about educational services available to them. Extension has initiated the first posting of a fourphase plan to promote the Michigan State University Cooperative Extension Service. Fifteen 10 x 20-foot outdoor poster panels strategically located are being used to spread the word in the county.

According to research, 90 percent of the people read billboard messages on an average of 21 times during a 30-day period. This infers that outdoor advertising promotion should be a very effective way to inform the citizens of a given area.

Through the cooperation of the local outdoor advertising company, commercial advertising space equivalent to over \$500 per posting was given to Lenawee County Extension agents. The only items furnished by the Extension office were the paper and artwork required for the postings—about \$8 per panel. Although the cost was supported enthusiastically by the local supervisory committee, other local sponsors could be mustered if a given set of funds were not available.

The real test arose when it came to poster copy design. Extension doesn't have a well-known symbol. Our names and titles are bulky and cumbersome. Program areas are varied and quite diverse. It is difficult to work out an all-encompassing message for use on the first outdoor billboard promoting the Michigan State University Cooperative Extension Service, United States Department of Agriculture and County Supervisory Boards Cooperating in educational programs, including home and family living, 4-H Club Youth Work, resource development, marketing education, and agricultural programs education. Remember 6-8 words is all that can be read by a motorist traveling at legal speeds!

As far as the Lenawee Extension agents know, theirs is the first county in the country to use this form of mass media to such a degree. Although the full worth of this approach is yet to be verified, the change in the character of the flow of communications to Lenawee personnel indicated that considerable interest has been generated in this MSU Extension Office. Secretaries have been provided with a resume of the educational services offered, to help in explaining these services to clients when agents are out of the office. Also, the brochure, Know Your Cooperative Extension is used to supplement this description.



It Takes Sense To Spend a Dollar

by ANITA GUNDLACH
Assistant Home Economics Extension Leader
Wisconsin



This 4-H group in the Hillside Housing Development is a part of Wisconsin's program for low-income families.

CONSUMER Education is a part to fevery training session subjectmatter specialists hold with home economics agents in Wisconsin. If this sounds like a sweeping statement, let me quickly add that consumer education emphasis has been built into county Extension programs in Wisconsin over a period of years.

Administrators, district leaders and home economics specialists of the Wisconsin Cooperative Extension Service have been alert to Extension's responsibility in serving the needs of individual consumers and families as major consumption units in our society.

Families need information to make wise choices and decisions. They are aware of the many ways for families to spend their incomes. They know that families face a flood of new and complex problems because of the many new products on the market and that most families have limited resources. They know that young couples are inexperienced in the skills of family living and spending, that many wives work outside the home, but still have a major role in spending the family income. They realize that knowledge, management ability. attitudes, and family values are basic to Extension's educational endeavor to raise family living levels. They know that families are confused about what standard of living they ought to have. This confusion is probably the result of the tremenchanges continually dous place.

Home economists are aware that the level of living is based on the amount of money a family has to spend, but the standard of living is the way a family feels it must live. So sometimes it makes more sense to attach moral virture to spending than to thrift. Saying it in another way—it takes more sense to spend a dollar than to earn it.

In September 1962, the Wisconsin Home Economics Extension staff decided to devote its annual 2-day seminar to consumer education: To examine the role of the home economist in consumer education; to study legislation protecting the consumer; and to review Extension accomplishments in State and county programs. Every home economics staff member was involved in the program, as well as other resource people from the Madison and Milwaukee campuses.

Wisconsin Associate Director Henry Ahlgren threw out the challenge by outlining Extension's responsibility in consumer education. (1) Home Economists are in a unique position to assume a major role in Consumer Education. (2) The Cooperative Extension Service is concerned with total family development and has the responsibility of assisting families in establishing values on which to base their total choice of goods and services. Family needs and wants are more complex than they used to be, but so are the goods and services with which they must be matched. (3) The Cooperative Extension Service has the ability to organize people, to bring them together, and provide situations for group problem solving—we cannot afford to bypass this ability. (4) Extension has at its fingertips the latest research, as well as programs for consumer protection and changes in the marketing system that affect consumers. (5)

Extension has a trained staff who can provide up-to-date information necessary to meet the needs of families on consumer problems.

Reaching Low-Income Families

Management has become the key to homemaking and consumer problems. Home economists are in a key position to do effective teaching because of their understanding of the effects of human relationships in consumer choices.

In Milwaukee, county officials have been concerned with the increasing public welfare load. Approximately 40,000 people were receiving public aid. The County Welfare Department and the County Board of Public Welfare recognized that education in family living might help decrease this number. They looked to Extension to develop a program in Home Management and Consumer Education to train as home management aides women who were receiving welfare assistance themselves. These aides would then be assigned by the County Welfare Department to other welfare families who had management problems. These women would go as teachers, not housekeepers.

Case workers with the County Welfare Department recruited the aide trainees who were reimbursed at an hourly rate of pay, and the total subtracted from their monthly welfare allotment.

Subject matter included meal planning, development of a shopping list, wise food-buying, budgeting expenditures for food and household items, decision-making, values and goals, care of the house, clothing selection, credit and installment buying, cook-

ing, and child care.

Results as of the beginning of January indicate that 70 home management aides have been trained. Some 38 women have been certified as qualified aids—11 have found private employment and are off the welfare rolls. The remainder are unable to seek employment because of small children, or health reasons.

Aides have learned techniques of working with other families. They have found that they need information regarding the mental and physical background of the family they are to visit. The client must be won as a friend before any progress can be made. Subject-matter information can be taught only in context with known abilities: for example, homemakers would accept assistance on housekeeping problems but did not want assistance with food buying or money management. Another technique of working with families is illustrated in the following quote from an aide: "If you can get next to the children, you can win the parents' support."

A second home economist has been employed in Milwaukee County to work with the program for low-income families.

Saving on Groceries

Another example of consumer education with new clientele was planned and executed by one of the home economics agents in Green Bay, Wisconsin. This was a food buymanship series of four 2-hour sessions, held at the University Extension Center. The first session dealt with a general picture of food buymanship, types of budgets, consumption and spending statistics, changes occurring in food selection, price variations, and food-cost records.

The second session included weekly food-cost records and planning purchases.

At the third session, the women discussed the findings of their foodcost records, with emphasis on quality in food purchases.

At the final session, the discussion centered on buying canned food, brand names and labeling, packaging costs, comparison buying, trading stamps, and gimmicks.

Even though only 30 women enrolled for the series, from 90 to 117 women attended each meeting. Ages ranged from 18 to 65 years.

Home Furnishings Tours

Another program in consumer education was aimed at youth. This was a series of six home furnishings tours in six major cities in Wisconsin. Some 200 home furnishings project leaders and 4-H Club members participated under the leadership of the home furnishings specialist. They visited furniture stores and china shops where they were given buy-

manship information.

The results of these tours have been far-reaching. Members used the information to report back to their clubs and at Achievement Days. Some held similar tours in their own counties to reach other youth members. Evaluation sheets also indicated direct assistance to members participating. These tours will be held again in 1963 in other areas.

In at least two Wisconsin counties, home economics agents have cooperated with business in an attempt to acquaint them with the Textile Labeling Law. These home economists worked through Chamber of Commerce in bringing together textile retailers, store salesmen, drycleaning personnel, and others, to give information on the Textile Labeling Law and its implications to business. The result was a better understanding of Extension and what it has to offer, and a closer relationship between Extension and business personnel.

Buying a House

In two Wisconsin urban counties, program planning efforts brought out the need for information on buying a house. These are counties where urbanization is rapid, and where families are looking for adequate housing in developing subdivisions. Teams of University specialists worked with Extension personnel in organizing a series of meetings on an interest basis for both husbands and wives. Subject matter included financing, zoning, landscaping, kitchen arrangement, selection of furnishings, and other related areas.

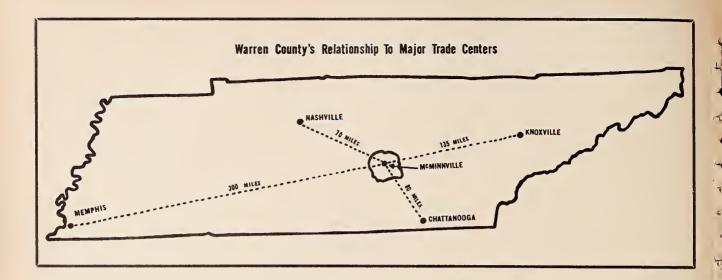
These annual meetings have been effective in meeting the needs of a new group of clientele and acquainting them with the kind of assistance Extension has to offer.

These are only a few examples of the many methods Wisconsin Extension personnel use to educate the consumer. Millions of bulletins and leaflets prepared by State Extension specialists are distributed yearly. The press and TV are also excellent cooperators of the Extension Service in helping consumers to become more proficient in coping with abundant choices.

A Home Management Aide shows a young mother how to make chocolate drink from dried milk and cocoa. Her



Milwaukee Journal Photo



The Warren County Story

a rural county organizes, builds for the future

by ABNER B. LEMERT Assistant Extension Editor Tennessee

66T EN YEARS ago our high school graduates had to go to some other area to get a job. Many of the girls thought the best way out was to get married."

These were the words of Warren County school superintendent Carl Campbell, solemnly describing the employment situation of this east central Tennessee county a decade ago.

"I don't mean to imply that our problems are now licked," he quickly added, "but we do feel that we have made sound gains. When our new vocational training building is completed, we will be in a much better position to give our people what they need to maintain a good livelihood—at home."

This rough to rolling countryside, that borders on the Highland Rim and the western side of the Cumberland Mountains, has gradually taken on the look of progressiveness that is envied by many other rural counties in the State.

It's one of the few Tennessee counties that has gained in population at a time when the number of the Nation's farms is declining. The shift has been to industrial work in McMinnville, a town of about 11,000 which now supports more than two dozen manufacturing concerns.

The trend seems to favor country living. Many factory workers are moving to beautiful newly-built homes near town. Many of the farmers that have stayed on the land, are now obtaining gainful employment in town and no doubt will continue to live on the home place.

A survey conducted by the local Chamber of Commerce shows that around 65 percent of the people working in the local factories have out-of-town addresses. About 62 percent of the rural people in this county with a population of 23,000 have indicated that some part of their farm income was from some other source than farming.

"We might have an unusual situation here," noted D. P. Henegar, Chamber of Commerce manager. "Our people find daytime babysitting one of their biggest problems. There are just not enough Grandmas and Grandpas to go around since Mom and Dad have both found work in town."

What has brought about this change in the economy of one small county?

Actually, a few decades ago the main source of income was the soft and hardwood timber species that grew abundantly on the Cumberland Mountain range in the southeast portion of the county. Now there are hardly any good timbered tracts left, and only a depression in the ground lined by a rotten log frame marks the livelihood of a past generation. Such old sawmill sites crop up frequently on the scrub-timbered mountain sides.

But the pioneering spirit of these rugged folk has never dampened. They have been accustomed to hard work, and have inherited the stamina and zest of their forefathers. Their conversations are sparked by bits of humor. The subject of community improvement immediately brings about a changed expression on their faces,

and they beam with pride as they point to their accomplishments.

So intensified is their interest in civic and community improvement that they have never defeated a bond issue that has been clearly earmarked and promoted for the betterment of the area. As one citizen explained it, "We raised our hands for a \$500,000 industrial bond in 1958 and we have never taken them down."

The county leaders referred to the \$10 million industrial bond that the county passed recently. This sum carried varying amounts tagged for multipurpose industrial use. "If a company needs money for building or expansion, we don't even have to vote," the Chamber of Commerce manager explained. "It can be taken out of the industry bond fund. We voted four times and decided that it shouldn't be necessary to call for a referendum every time a company needed a little money."

In a few years this community has made such lengthy strides in industrial development that only one or two major firms are still housed in old buildings.

Twelve firms have recently expanded and together provide employment for nearly 4,000 persons. Many more citizens are employed in the more than 100 registered commercial nurseries that retail and wholesale approximately \$6 million worth of plants annually.

The industrial side of the coin includes only a portion of the country's total resource development efforts. A \$3 million water and sewerage bond passed with flying colors. A new water filtering plant was erected with a capacity of $3\frac{1}{2}$ million gallons per day—about three times its present load. The Southwest Warren Utility District was established and water mains were extended 9 miles beyond the McMinnville city limits to Morrison.

So the stage was gradually set for a full scale effort in resource development. Community leaders who had been working for continued industrial growth were seeing their efforts reap dividends. Now they had to concentrate on problems that come with a growing, prospering community—schools, water, housing, and others.

January had always been busy for the Warren County agent. The beginning of 1962 was no exception for Hobart Massey. He had been in contact with the State resource development office headed by L. J. Strickland, and had always obtained considerable help in organizing the county for its diversified industrial endeavors.

After Massey visited with several community leaders, January 19 was set as the target date for initiating a rural development program in the county. Marvis Cunningham of the State resource office was contacted to discuss the merits of RAD, and the many types of assistance that are available to a county through this self-improvement program.

During the course of the meeting, 12 study committees were appointed. These groups met separately with Cunningham and Massey. N. D. Mullican, a poultryman-factory worker living in the Midway community, was appointed chairman of the overall RAD group.

At one point in the meeting an inspired leader took the floor and declared: "This is something that can be for the good of all of us." Another said: "This is the first time that we have had a chance to pull our problems together on a countywide basis. We should help each community develop to its full potential."

"The meeting was an overwhelming success," said Massey. "Those attending voted unanimously to organize under the RAD program. Up to now there had been a lot of talk about what to do. Now this begins to give folks the grip they need to start action."

In August 1962 the Chamber of Commerce completed an Occupational Survey for the State Department of Employment Security. The report showed that there were 176 current job vacancies, excluding openings for unskilled laborers. The survey of the 78 companies and service establishments indicated that there would be 863 more jobs to fill within 2 years.

For instance, the report showed that by 1964 at least 34 more licensed and practical nurses would be needed (a new hospital was being built), there would be openings for 32 carpenters, 39 auto mechanics, 25 machinists, and 36 tool and die makers.

In the semiskilled category, 149 openings were estimated for sewing machine operators as well as 35 vacancies for persons to man woodworking machines. These were only a few of the many labor demands indicated in the future of the community.

But these figures did not spell out a "golden land of opportunity" for many of the citizens. Who could qualify for the various jobs that required specific skills?

Workers ball shrubs for shipment. The principal source of farm income in Warren County is from nursery stock.



A survey conducted by high school English classes pinpointed the labor situation. "We found that many of our seniors didn't have any idea of what they were going to do," said superintendent Campbell. "There are always about 400 graduates who flood the job market in early summer, and add to the 800 unskilled people in the county already unemployed.

"In studying the situation, we also became concerned about the many residents that were underemployed—maintaining an income of less than \$1,200 a year."

What should be done?

The county agent again was called upon to lend a hand to this problem. The Manpower Development and Training Act was studied and it was found that money was available for a vocational training program. The County Court immediately set aside \$80,000 for a vocational building to be erected on the county-owned fairgrounds. Classes in industrial mechanics, woodworking, metalworking, and auto mechanics were started in mid-June.

The prefabricated building will house more than \$100,-000 worth of equipment in the machine shop alone. There will be no charge for the training, no tuition. In fact, students will be paid \$25 to \$35 each week to attend. The education will be available to citizens in surrounding counties as well as Warren County residents.

The county agent, then, has been broadening his longestablished field of agriculture to give more help to all the people of the county. But just the same, he still has more farm responsibility than ever and RAD gives him another lever he can pull to get things done—the agriculture committee.

At the preesnt time, this ag group has focused a lot of its attention on efficiency of production for profit and on the 33,000 acres of submarginal land in the county. It's concerned with many things: reforestation, soil management (a soil testing program is being effectively carried out through the 4-H Clubs), livestock management, rural civil defense, and even such local problems as the alfalfa weevil.

To get a better idea of how the county agent was adapting to total resource development work, we asked: "Now in a general way could you describe your role in RAD?"

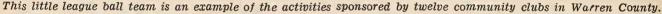
"As I see it," said Massey, "it's mostly my job to keep RAD functioning in its proper perspective in our county, and define everyone's role within its framework. I have always tried to emphasize that the program is merely a 'tool' that we can use on the local county level to help ourselves.

"When I show interest in this work, my enthusiasm rubs off. I believe we have to bring all the organizations in the county into the act...the more that are involved, the more interest we can generate in the program.

"When we once got to the point of setting goals, many started prodding each other. This always helps.

"Sure we've had our problems," he said. "There were those who came to the first meeting with the idea that they would be able to dip into a pot of money and take what they wanted.

"Some thought it would be easy to solve our problems







The people of Warren County, Tennessee have set up a County Development Committee to re-evaluate their situation and to plan for long-range economic growth. The Committee has made amazing progress and has involved many people. The program has opened new opportunities for the county agent to help the people of the county and he has found new strength in the combined efforts of farmers, business and civic leaders, and representatives of agencies and organizations working together.

V. W. Darter, Director Agricultural Extension Service Tennessee

Left, construction of the vocational training building; and below, controls of the new water filtering installation.

in this community, a meeting or two and a little money was all we needed."

The county agent pointed out, however, that some of the things that he thought would be problems were not. He often referred to the help that the 12 active community clubs have given him. "These definitely give us a readymade organization to work through," Massey said. "Overnight we can call a meeting and have the entire county represented."

In the State resource office at Knoxville, L. J. Strickland had this to say about the progress in Warren County: "We're proud of Warren County because it has specialized in using the local resources that are available. This county has maintained itself in such a position that it doesn't qualify for the low-cost ARA loans. Yet, the citizens were not discouraged when they learned this, and actually in working with them we found out that they didn't want financial aid coming from outside the county.

"As a result, all that we have had to do is guide them in the right direction, and encourage effective organization. This is about as good an example of true resource development as you can have." Patt or re-

Written in cooperation with the Extension Resource Development Department, University of Tennessee.



\$10 Per Hunter Just a Starter

Several years ago the Rural Development Committee and Extension Council in Taney County, Missouri, started a deer hunting program that's brought cash and a reputation for good hunting and hospitality to the county.

Last fall the Extension Service, the county RAD committee, and the State Conservation Commission cooperated with about 30 landowners who leased deer hunting range, at \$10 per hunter for the 7-day season.

The Extension office served as clearing house for both farmers and hunters. Agents gave or sent hunters lists of cooperating landowners as well as those who also offered sportsmen accommodation. Extension also handled some publicity with nearby States and metropolitan papers.

Almost 17,000 acres were signed up—enough to handle 350 hunters.

A little quick arithmetic tells you these landowners took in about \$3,500 last year—from leased hunting rights alone. But when you figure only the money that hunters spent in Taney County for supplies, food, and lodging, you can see why such a program gets enthusiastic support from the RAD committee and local citizens.

Recreation for Sale

Recreation opportunities—what is required to get into the recreation business, what the individual farmer will need to do, and what he can expect to earn—are all covered briefly in a new set of leaflets from West Virginia. J. Frank Wade, area extension development agent, and Dr. Robert Leo Smith, assistant professor of wildlife management, West Virginia University, have packed a lot of helpful information in four publications on picnic and campsites, farm vacations, raising baitfishes, and catering to sportsmen.

West Virginia Extension works closely with the State Departments of Agriculture, Commerce, and Natural Resources and county and State Health Departments in developing opportunities for rural recreation. ■

Benchmark Data Give Big Picture

Extension economists at the University of Minnesota supply county agents and RAD committees with "benchmark" economic and social data.

K. H. Thomas and W. C. Wiseman developed statistical profiles quite similar to those prepared by the Bureau of Census for ARA-designated counties. There is one big difference, though. In addition to county and State data, they've also included statistics for the economic area in which a given group of counties is located.

The inclusion of data for the economic area provides local county planners with the "big picture" for their area as well as another yardstick against which they can measure the progress of their own county. They can also make comparisons with other counties located in their particular economic area.

More Than They Asked For!

When the Navajo County Development Council and egg producers asked Extension agents Amos Underwood and Jim Williams for some help, they got more than they bargained for. They had wanted a poultry marketing study: They got that—and more.

The agents called on Extension economist Dr. Clarence Edmond and Extension poultry specialist Dr. Frank Rollins, from the University of Arizona, who headed up a team that studied production methods, costs of processing, and the market structure—the whole works.

They found that better flock management was needed, and that egg processing costs at the cooperative were high. On the positive side they found a large potential market existed in northeastern Arizona.

Armed with these facts, the agents, producers, and co-op went to work.

Flock management improvements were made—egg production doubled. New machinery was installed at the co-op to handle eggs six times faster. A new egg carton was designed and other marketing improvements were made.

Improved production methods, along with a reduction of processing costs have enabled co-op members to meet competition, enlarge their market, and improve profits.

Agents Underwood and Williams encouraged these folks to get all the facts before deciding what to do about their problem. Instead of one problem, they found several. But armed with this analysis, these agents were able to stage a multipronged educational effort that paid off.